

UPCOMING GENERAL MEETING SCHEDULE
(subject to change)
by David Eisler - VP

DEC- Demonstration of the new "SAVVY CARD"
personal language system by Scott
Knaster

JAN- Quantum Technology Inc. of Aurora
will demonstrate their line of real
world interfaces for the APPLE,
(motor control, temperature sensing,
and other neat stuff)*

FEB- Business applications

MAR- Assembly language

APR- Home control

MAY- Elections

*=revised since last month



TREASURER'S REPORT

November Treasurer's Report

Oct. Ending Bal.	4,029.13
New Membership	532.00
Renewals	216.00
D.O.M. Sales	270.00
Club Library Copying	207.00
Advertising	.00
Sales of Supplies	2,325.00
Interest Received	15.47
Misc.	.00

Supplies for:

President	< 293.94>
Vice President	< 5.32>
Secretary	< .00>
Treasurer	< 72.50>
Librarian	< 345.00>
Editor	< 7.00>
Officers at large	< .00>
PURCHASE FOR RESALE	< 3,010.00>

Balance as of 11/11/82 3,860.84

Respectfully submitted

Fred Yates -- Treasurer

November 11, 1982

FROM OUR PRESIDENT

As we announced in the November Seed we are having a raffle to come up with the funds for staying in the Green center for our General meetings. At the last board meeting it was decided that we would pay whatever was necessary to meet at the Green center for the first three months of 1983. Dave Eisler has the information on the Raffle but here are the basics:

Tickets will be \$1.00 each, no limit per customer. You do not have to be an Apple Pi member to buy. Drawing will be at the February 1983 meeting, you do not have to be there to win. There will be two drawings one for a Z-80 card with C/PM and the other for the Complete Graphics system from Penguin software. Additional prizes will be announced before the drawing.

The subject of the December meeting will be the new Savvy card for the Apple][. This has been described as an intelligent operating system that adapts to the user rather than the user having to adapt to it. Scott Knaster will be doing the demo.

In January Quantum Technology will show there line of interface controls for the Apple that will allow control of pumps, switches and other things around the house, office or lab. Also Mike Westerfield will be bringing his new Orca assembler which is a Macro assembler. According to Mike this Assembler will retail for \$100.00 but he will be offering his Author's introductory price at the meeting for \$50.00.

At the last board meeting Dave Moger officially resigned as our secretary and the officers appointed Mary Ann Vitry to replace Dave. Mary Ann has served in the past as the secretary and we are happy to have her back.

At the same time we filled the post left vacant by Dan Geisler for Officer at Large. Ron Heath will fill this post for the rest of the current term.

Steve Martin

December
GENERAL MEETING

Our next regular meeting will be held at:

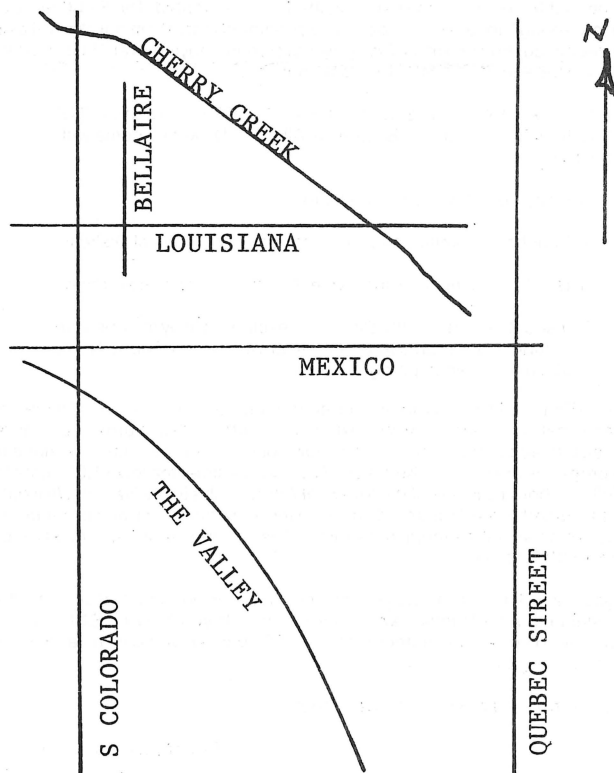
COLORADO SCHOOL OF MINES
GREEN CENTER
GOLDEN, COLORADO

7 PM December 2, 1982

We hope to see you there
Meetings are monthly scheduled for the
first Thursday of each month.

DECEMBER Swap Meet

Our December Swap Meet will be held on
Sunday, December 5, from 10AM to 3PM, at
the Picadilly Apts., 1255 S. Bellaire
#409. The Apartment House is located 1
block East of Colorado Blvd. at the
corner of Bellaire and Louisiana Streets.
Our host is Wayne Harrison, who may be
reached at 691-9182 for instructions if
you get lost.



JANUARY Swap Meet

Our January Swap Meet is currently
scheduled for January 9th at 11546 N.
Albion Ct. in Thornton, CO.

ENHANCING YOUR APPLE II

Book Review by Louis Breyfogle

Have you been wanting to learn more about
the inner workings of your trusty APPLE
II? Do you want to learn assembly
language programming? Have you wanted to
use your APPLE II to create special
effects on your Video Tape Recorder?
Enhancing Your APPLE II by Don Lancaster
is a must for your computer library.

Those of you that are hardware orientated
will recognize Don Lancaster as the
prolific author whose published works
span almost everything from 'Cheap Video
Cookbook' to 'The Incredible Secret Money
Machine'. His latest effort, 'ENHANCING
YOUR APPLE II', is a anthology of rather
neat things that will help you learn more
about your APPLE and its applications.
Lets look at the Table of Contents and
see where Don is leading us.

INTRODUCTION

The Introduction should be read, as it
sets the mood for the rest of the book.

ENHANCEMENT 1 - Two Glompers

Two methods to eliminate hassles over rf
changeover switches.

ENHANCEMENT 2 - Programmable Color Killer
Simple modification that eliminates color
fringes on HIRES text displays under
software control.

ENHANCEMENT 3 - Tearing Into Machine
Language Code.

An astonishingly fast and simple way to
tear apart someone else's machine
language program.

ENHANCEMENT 4 - Field Sync

One wire add-on for stunning new
animation, game, video, and control
possibilities.

ENHANCEMENT 5 - Fun With Mixed Fields

Mix or match text, HIRES, and LORES
anyplace on the screen, fast and
flicker-free. Also reveals the secret of
the 121 LORES colors. Or does it?

GOTO page 11


```

$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$$
$$ :::---<<< DENVER'S >>>---:::
$$
$$ APPLE PI USER'S GROUP
$$ =====
$$ is giving away 2
$$
$$ $50.00 Gift Certificates
$$
$$ good at a store that
$$ is a member of APPLE PI
$$
$$ 1. For the best Program
$$ written and given to APPLE PI
$$ in any Computer Language that
$$ runs on an APPLE Computer
$$
$$ 2. For the best HELLO GRAPHICS
$$ program for our
$$ DISK OF THE MONTH
$$
$$ DEADLINE: December 31, 1982
$$
$$ MUST BE A MEMBER OF APPLE PI
$$
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$

```

SCANNING THE ISSUE

We have TWO paid advertisers in this issue! Take a look at pages 9 and 12, and support those who support us.

Elsewhere, Jack Quinns APPLESEEDS for this month gives us some do's and don'ts for the holidays, and some gift ideas for our APPLES on page 10. Steve Martin is starting a series of articles on page 8 to get us started in telecommunications with our APPLES.

Since we didn't get the November DOM printed last month, its published here along with the December DOM. Don Lancasters new book, "Enhancing Your APPLE II", is reviewed starting on page 3. Check it out.

The Editors of the SEED wish all of you the best of Seasons Greetings!

LB

APPLE PI USER'S GROUP LIBRARY INFORMATION

The APPLE PI LIBRARY contains over 5,000 programs and files on over 250 diskettes in over 30 catagories. All of these programs are Public Domain programs which are either original efforts by members, modifications of programs listed in magazines or Newsletters for the APPLE II Computer, or programs obtained through trades with other clubs. Some of the programs that we have were copyrighted after they were given to us and so we are free to trade them with APPLE PI members only (and not even with other APPLE Computers Clubs). Please honor these commitments. Therefore the APPLE PI LIBRARY is not supposed to contain copyrighted programs; if you spot a copyrighted version of a program, please let us know so that we can remove it. This is one reason you must be careful in giving us programs in exchange.

The APPLE PI LIBRARY is open to all members of APPLE PI. There are several ways you can contribute to or obtain copies from the Library:

- 1). By coming to the Monthly SWAP MEET (usually on the First Sunday after the General Meeting).
- 2). By Written Request to the Librarian at the monthly General Meeting.
- 3). By Written Request to the Librarian by Mail.
- 4). By Appointment with Dr. Brown at the School of Mines (279-0300, Ext. 2434).

The Library is available at the SWAP MEETS. Every Member should have a listing of most of the programs in the yellow book "THE APPLE PI LIBRARY LISTING" (New Members receive them free when they join). Additional or Replacement Listings are no longer available. New LIBRARY LISTINGS will appear sometime next year. An Almost Up-to-Date Listing is available at the Swap Meets.

The cost to you for the copy of a side of programs is \$1.00 and a blank disk. Almost all programs in our Library are in the process of being converted from DOS 3.2 to DOS 3.3. Disks no longer need to be initialized for our copy program. We will no longer grant access to anyone to remove Diskettes from our Library to test them out to see if the programs on the Disk are wanted. The \$1.00 fee was made low enough for anyone to get these programs to try them out. We will also avoid people destroying Disks. Since we have been copying over 150 Diskettes during an average SWAP MEET we ask that you:

- 1). LABEL EACH SIDE WITH THE CATAGORY AND DISKETTE NUMBER (i.e. BU 001 Business). All good Diskettes come with Labels!
- 2). Copy Fee of \$1.00 per Disk side.
- 3). Punched Diskettes if you wish to copy both sides of Diskette.
- 4). BY MAIL we need: Your Name, Address, and phone number.
- 5). Instructions on how the Disk is to be returned. If by mail, be sure to include a self-addressed stamped envelope and Floppy Armor or \$2.00 to cover shipping costs.

The APPLE PI LIBRARY is only open to members of APPLE PI. These are programs that are obtained by your expense and effort. Please urge your friends to join also to add to this support. At the low cost of \$1.00 per Disk side, none of these programs are beyond the reach of people. Besides the low \$1.00 cost of a Disk full of Programs is one of the lowest of Apple Clubs in the Nation. We would not like to raise this fee. Many clubs do not even allow access of their programs to Members of their clubs except in the form of Disks of the Month. And most Clubs charge \$7.00 for them!

If you have found a)) BUG ((in one of our Programs please note the circumstances, Line Number and Type of Error. If you fix a)) BUG ((in a program we will give you another Disk Side FREE when you give us a "FIXED" copy of the program.

Hope to see you at the next Swap Meet.

Robert C. Gaiser, Librarian



APPLE PI'S DISK OF THE MONTH:

Dr. Livingston

A 061

DECEMBER 1982 DOM #029

APPLE PI DOM DECEMBER 1982 A 002
December.Pic B 034
December.amn B 036

This New APPLE PI Graphics Hello program is the work of Tony Jeffries.

New Hello #2 A 017

This Binary Hello Program (hiding as Applesoft) shows the File Type on the right side of the screen. A Touch of the Letter will run it.

Stalag 12 A 077

You are a Lt. in the Engineer Corps. The year is 1944. You've been captured by the enemy and sent to 'Stalag 12'. The object of this Text Adventure game is to escape alive with the little information that you have.

Flags A 021

Upon entering the number of National Emblems you wish to identify, a Flag will be displayed on the Screen. You will be presented with 4 possible choices.

Volleyball A 019

This is a Hi-Res 4-Player Volleyball Game. The Paddles control the Outer Men and the Arrow Keys will move the Inner Men.

Rubicube A 039

This program simulates Rubik's Cube and twists and turns it in the Apple's Low Resolution Graphics.

White Lightning A 023

The object of "White Lightning" is to score as many points as possible by reaching targets that will appear randomly on the Screen.

This Text Adventure game begins in a bedroom searching for Dr. Livingston.

Display Apple.Pic A 002
Apple.Pic B 034
Display Apple 16 Sec.Pic A 002
Apple 16Sec.Pic B 034

These four programs will print the famous Apple and 13 or 16 depending on the Sector you wish to label your Disks with.

Dragon Picture B 034

The famous Dragon Picture.



THANK YOU!

The Denver Apple Pi Users Group wishes to gratefully acknowledge the support of the following businesses that have purchased a business membership:

COLORADO COMPUTER SYSTEM
3005 W.74th. Ave.
Westminster, CO 80030
(303) 426-5880

COMPUTER VIDEO CONCEPTS
P. O. Box 35
Evergreen, CO 80439
(303) 674-2385

COMPUTERLAND OF NORTH DENVER
8749 Wadsworth Blvd.
Arvada, CO 80003
(303) 420-1877

COMPUTERLAND OF DENVER
2422 S. Colorado Blvd.
Denver, CO 80222

BUSINESS COMPUTER SYSTEMS
13045 W. Alameda Parkway
Lakewood, CO 80228
(303) 988-9140

When you visit any of these stores, let them know that you are an Apple Pi member, and tell them you appreciate their support.

APPLE PI'S DISK OF THE MONTH:

NOVEMBER 1982 DOM #028

APPLE PI DOM NOVEMBER 1982 A 002
November.Pic B 034
November.Anm B 036

This New APPLE PI Graphics Hello program is the work of Tony Jeffries.

New Hello #2 A 017

This Binary Hello Program (hiding as Applesoft) shows the File Type on the right side of the screen. A Touch of the Letter will run it.

Police Patrol A 084

This Hi-Res game where as a policeman you must patrol the beat chasing and shooting people.

National Anthems A 045

Hi-Res pictures of Flags of different countries while your Apple plays their National Anthem.

Microdrafter A 025

This Drafting Board has Three Different Modes (Compass, Straightedge, and Freehand) to draw what you want.

Arena of Octos A 030

Your Star Cruiser has been captured by the Octon Empire. You must defeat 8 warriors in arena combat to escape from this Empire.

Code Breaker A 020

You must determine the Color and the Sequence of the pegs. A hint board on screen will help you.

Word Challenge A 043

This is a game for two players where you must guess a 5-letter word before your opponent does.

Gambler

A 051

This is a contest to see if 1 to 4 people can build his \$100 bankroll through a series of games of chance--Horse Racing, Dice Games, Lotteries and Sweepstakes.

Portfolio Evalulator

A 021

This program by Tony Jeffries will keep track of Five Stocks of your choice. You can keep track of the Date of Purchase, Price you bought it for, and the Daily Price.

Stock Information

T 002

This is the text file for the Portfolio Evalulator program.



ADVANCED BASIC GROUP: NOVEMBER SIG REPORT
by Dave Eisler

We had another interesting get together at the November swap meet; I think more people participated than ever before! The main topic of the meeting was chapter 3 of the Applesoft tutorial. People especially liked some of the tricks that were covered like mixing logical and arithmetic expressions.

GRAPHICS & SOUNDS (chapter 4) will be the subject of the next meeting. Bring your questions and individual problems! Everyone welcome. I'm hoping for an even better turn out than last month!



***** RAFFLE TICKETS! *****

GET YOUR APPLE PI RAFFLE TICKETS!
ON SALE NOW

AT THE GENERAL MEETINGS & SWAP MEETS

ONLY \$1 (helps pay for our meeting room)

PRIZES (choose from):

Z-80 CPM card for your Apple II

COMPLETE GRAPHICS SYSTEM by Penguin

JOIN IN ON THE FUN! BUY A TICKET!

UPDATE ON APPLE PI'S LIBRARY

The past two months we have added more disks to our Library--a large group of them from Dallas Apple Corps. Next year we will (hopefully) add a Pascal Disk of the Month and a CP/M Disk of the month. If you have any programs in either of these two categories then please give me a copy of them. We have also received some other files in other languages such as Logo, Fortran, Forth and Cobol.

Program Listings

I have reorganized the Categories or Subjects of the programs in our Library. There are now Five Major Categories in our Library. They are:

- A. BUSINESS PROGRAMS
- B. EDUCATION PROGRAMS
- C. PERSONAL PROGRAMS
- D. RECREATIONAL PROGRAMS
- E. UTILITY PROGRAMS

This makes much better sense (philosophically) when one is looking for a particular type of program. There are five to six sections in each category and 5 to 10 subsections in each of these sections. This was needed to better sort the great number of new programs coming from other clubs. It will also make finding a particular program much easier. For instance Education has 31 subsections and in order to get all of our programs on the subject of Math one has only to go to the Math Disks and there find 3 disks on the subject. That is much quicker than looking through 20 disks to find this particular subject. It does mean that someone has to go through each program and put it into one of these areas!! (You guessed who!). But it will also make it easier when someday the entire Library is on one hard disk drive!

SPECIAL CONTEST UPDATE

Just a few short weeks and our FIRST ANNUAL CONTEST will be over. We are giving away \$100.00 to the two best programs donated to Apple Pi. \$50.00 to the best "GRAPHICS HELLO PROGRAM" for our Disk of the Month and 50.00 to the best

"GENERAL PROGRAM" submitted to any category. The \$50.00 can only be spent at one of the Business Members of APPLE PI. We have a number of these programs some of which appear on the November and December Disk of the Month.

SPECIAL APPLE PI CHRISTMAS DISK GIVEAWAY!!

Since we have an over abundance of Christmas graphics and programs that came in after our December Disk of the Month was finished we will have the above disk available FREE to anyone who asks for it. All you need to do is to go to one of the Business Members of Apple Pi and ask them to give you a free copy of this disk.

THIS DISK IS ONLY AVAILABLE FROM OUR BUSINESS MEMBERS AND IS NOT AVAILABLE FROM THE APPLE PI LIBRARY.

Ask your Computer Store for a copy of this disk and if they do not have it ask them why they are not a "BUSINESS MEMBER OF APPLE PI". After all you are the reason they are there!! This will also help us to expand as this disk is available to anyone who asks for it. This Disk contains some very nice graphics, music and utility programs. Tony Jefferies has done a nice Graphics picture for Christmas. Jim Barrie has given us his new Text File Utility (one of the best I have seen). He has also given us a new version of the Epson Switch. His Peek/Poke/Call Utility is very useful along with some other programs.

Kevin Schiesser has given us three Science and Math programs. And we have another great Christmas picture from North Junior High School (don't any of the other High Schools have computers yet???) R. Klemm has given us the ability to make Header Changes with "File Cabinet Mach 5". Other programs will also be shown at the Monthly meeting. Go in and ask for a copy of this disk!! Just mention that your a member of Apple Pi and support our local stores!!

Bob Gaiser, Librarian
DENVER APPLE PI USER'S GROUP

TELECOMMUNICATIONS AND MICROCOMPUTERS

by Steve Martin

For many of us the biggest reason for buying a microcomputer was its ability to store and collate large volumes of data and allow us to manipulate that data in order to get the information we want out of it. Through today's telecommunication techniques we are now able to access greater quantities of information to be used by our micros to aid us. In this article I want to describe how microcomputers are capable of hooking into these information sources and how they can be used by all of us to increase our computing horizons. Most of this will be old stuff for people who own modems with their Apples but I hope I can be of some help to people who are thinking of doing something like this.

The first thing you will need is a Modem. Modem stands for MODulator/DEModulator. What a Modem does is take binary data from the computer and translate it into a signal which can be transmitted via telephone lines. The Modem also takes signals from the line and translates them into binary data for the computers use. Most modems are designed to accept and send standard ASCII data which most computers, including the Apple, use. The binary code that is sent will be translated as high frequency "clicks" that represent the 1's and 0's of the binary number. When this data is sent it will be preceded by a "start" bit and some number of "stop" bits that tells the receiving system where a character begins and ends.

The sending and receiving systems may also count the number of 1's or 0's to relay whether each is sending or receiving the data accurately. This is called Parity. Parity checking is normally only used when critical data is being sent or there is some reason to doubt the reliability of one of the units involved.

The speed at which a system sends and receives data is normally referred to as baud. Baud generally stands for bits of

data per second (also known as BPS). Since there are usually about 10 bits per character sent a rough calculation of transmission speed can be made by dividing the baud rate by 10 to give the number of characters per second. The most widely used baud rate for microcomputer systems is 300 baud which comes out to about 280 to 310 words per minute. There are several manufacturers currently developing 1200 baud systems for speeds in excess of 1000 words per minute. Unfortunately these Modems are much more expensive than the 300 baud devices.

After you have gotten your modem plugged in you still will need some assistance using it in conjunction with the computer. This is usually done through terminal software. What this software does is handle chores such as accepting data into memory to later store on disk so you can access it whenever you like. Terminal software might also take care of dialing a phone number for you and watching for incoming calls that it can answer while you are away. Some programs also come with complete text editors so that you can prepare the data that you are going to use without having to use some other software such as a word processor. In future issues I will be reviewing some of the currently available software for telecommunication.

Now that you have the hardware and software in place what do you do with it?

Probably the most fascinating opportunities that will open up to you are the dozens of bulletin board services (BBS's) right here in the Denver area, as well as hundreds of others in the rest of the country. These systems are usually free of charge and allow you to post public bulletins, leave private mail to other users, upload and download programs on the system and even in some cases play games that are offered by the service. BBS's are operated on various machines including Apples, Ataris, TRS-80's and Pets. The modems on each of these take care of any translations needed so you can access all of these machines with your Apple. Thus BBS's become a place where computerists of all types may

exchange ideas and information freely and easily. Naturally this does not all go on unsupervised and all systems have a system operator (SYSOP) who takes care of the hardware of the BBS and makes sure that noone is missusing the system in any way. However most SYSOP's respect people's privacy and only throw in their weight when people are obscene or are spending way too much time on the systems to allow other people a chance to get on. Most SYSOP's give users their own passwords so that they can be assured of the security of their files.

Even more important for those of us wishing to obtain a broader base of data sources are the various information retrieval systems such as The SOURCE and COMPUSERVE which are run off of mainframe computers. These systems contain several orders of magnitude more data than the small BBS's and they allow communication with people from all over the country. Of course there is a price to pay for these services but it is generally less than the cost of a phone call made over the same distance. I will do a review of some of these systems in a later issue.

Last but not least is the ability to communicate with other people you might know who have computers. Sending data back and forth and working together on programming problems can be a fascinating thing. There is even a game available for modem users which allows two computers to communicate the players actions via phone lines.

For those of you who are using Telecommunications now, or will be in the near future, here is a list of some of the BBS's in the Denver area that I am aware of:

System	Phone number	Sponsor
ABBS	759-2625	Computerland
APPARAT	741-4071	APPARAT
ATARI	758-6233	Atari users group
AURORANET	343-8401	Computer-world
ENS	758-4684	Wayne Harrison
GBBS	693-1064	Greg Schaeffer
MUMON	423-3224	Heath users group
UFONET	278-4244	Bob Dratch
PETULA	232-8509	Steve Renfrow

This is only a partial listing. I have used each of these systems and have found them to be run by intelligent, friendly people. Remeber that Apple Pi has a board open on the UFONET, so leave any messages you have for the club or the officers on this system.

SM



SEED UNCLASSIFIED ADS FOR SALE OR TRADE

I have a LOBO Disk II Interface Card, with both DOS 3.2 and 3.3 on the board. Will sell for \$75.00 or accept a DOS 3.2 APPLE Disk II Interface Card in partial trade.

Call Frank Reeves at 499-2192



alphaSyntauri(TM) digital synthesizers—live, dynamic keyboard instrument systems with a galaxy of musical possibilities for

pro and studio musicians—the latest digital sound techniques and performance keyboard features

composers—powerful digital 16 track recording and orchestrating tools

teachers—effective, innovative teaching aids for expanding music programs

students—friendly, intelligent musical instruments for mastering musical skills

all music lovers—a journey into the joys of creating and listening to sound, with your imagination as a guide!

**64K Apple II & I Disk Dr. needed
NOW ON DISPLAY AT**

KEYBOARD EXCHANGE
353 S. Sheridan Blvd.
Denver 934-5892
Open Mon-Sat 10 to 6

APPLESEEDS OF WISDOM

by Jack D. Quinn

Merry Christmas and a Happy New Year to all of you. With that out of the way, I would like to comment on a few things about your Apple Computer and its health during the Holiday Season.

As many of you know, the Apple will be the center of attention during the next few weeks. Some of the games will be very popular at parties for both the kids and adults. The Apple will require some supervision on your part when it is in use. Make a rule right from the start:

"NO DRINKS OR LIQUIDS AROUND THE APPLE KEYBOARD".

This will save you much grief and money if someone happens to pour something into the keyboard. If you feel that you cannot enforce the 'keep liquids away' rule, buy yourself a sheet of clear plastic about 18 to 20 inches on a side (or about the size of the Apple) and about 1/8 inch thick. Place the plastic on top of the Apple and either put the TV monitor or disk drives on top of it to hold the plastic in place. This will make typing a little awkward but may save you the expense of replacing the keyboard (at about \$125.00 a crack).

The joy sticks and hand controllers will get lots of use too. If they fail, there is not much that can be done other than buy a replacement. Do be careful and not step on the socket end that plugs into the Apple game port since the pins can bend and break off. The socket can be replaced but not inexpensively.

I would also caution you not to leave the computer on and running a game that leaves the same picture on the screen for long periods of time since you can burn the screen of a video monitor or TV set (especially a color TV set) by doing this. You will know you have burned the TV screen when you see a sort of ghost image of a video game at the same time as your favorite TV show. If you feel that you must leave the computer and TV set

going, DO turn down the brightness control.

Now something on a different note. What do you get an Apple user for Christmas? Here are some ideas that may help you in shopping or dropping hints on what you might want.

Let's start at the low end of the price range and go from there. You might want some Apple jewelry—I have seen tie-tacks, lapel pins, cuff links, and earrings with the Apple logo on them. To protect your Apple, a cover made from plastic to keep out the dust from Covercraft and others might be nice. You also can get covers for most monitors and the disk drives or any combination thereof. One method of storing disks in a notebook is with a plastic sleeve which sell for about \$1.00 each. If you are using floppy disks that don't have the mylar reinforcement ring in the center you might want to buy the kit that has the device for centering the ring along with a supply of the rings.

For about \$20.00, a power strip with a switch can untangle all your power cords on your Apple. (I have talked about this in an earlier column.) A fan to keep your Apple cool for about \$30.00 or as much as \$75.00 might be to your liking. If you have an Apple that is less than 2 years old with a revision 7 Mother board and you do lots of word processing, you can get a lower case chip that replaces the character generator ROM in your Apple to give you both upper and lower case letters. (Sorry, but it won't give you lower case in Applesoft without some changes in the other ROMs.)

For those of you with an Epson printer and about \$50.00, a device sold by Dresselhaus Computer Products called MXPLUS is just the thing you need. It allows you to set the print control commands such as the type styles and spacing directly on the printer without opening up the Epson and without having to touch the computer. You can even change things while you are printing! Great!! If you have had your Apple for any length of time, you probably have a good collection of floppy disks. How to

store the disks is always a problem and I think the smoke plastic flip top boxes that hold about 50 disks are just the thing. (These are the ones on sale at the Apple Pi meetings.)

It might not sound like much of a Christmas gift but I think most computer people would like to get printer supplies such as a new ribbon for their favorite printer or if they are lucky enough to have a daisy wheel printer, a new print wheel. Paper can always be useful. You might check with your local quick copy print shop that has IBM copiers and ask them to sell you a roll of paper. (Its 8 1/2 inches wide and about 500 feet long and if you are very lucky, they might have it in colors.) I think covers most of the under \$100.00 things that I can think of right now.

In the \$100 to \$200 range a few things come to mind. The first is a 16K memory board (sometimes called a Language Card) if your Apple is not so equipped. You might find some of the new printer buffer cards (like Wizzard) will help you print things faster. These cards allow you to send data to the printer in up to 32K blocks and then give you control of the computer again while the printer is running. You might also want to buy LOGO for your Apple. There seems to be a great interest in Logo--it looks like fun.

For the high priced items, you might think about a second (or third?) disk drive or a 80 column board. Both are quite useful. Many computer stores are now selling furniture in the form of work stations which have shelves for the monitor or TV set along with the disk drives and the printer. Just the thing for your den! If you have not been in a computer store recently, you may not have seen the new orange (yes bright pumpkin orange) video monitors. You will either like them or hate them--no in between.

I hope these ideas might suggest other ideas to make your Christmas a happy one.

JDQ

- continued from page 3 -

ENHANCEMENT 6 - Glitch Stompers
Add-on adaptor that further improves field sync and mixed field switching.

ENHANCEMENT 7 - Gentle Scroll
Easy to use program gives you gentle or crawling scrolls that are easily read while in motion.

ENHANCEMENT 8 - Fast Backgrounder
Utility program that gives you hundreds of HIRES colors or zillions of background patterns.

INDEX

A very essential part of any text.

Once you have read the introduction there really isn't any reason why you cannot go to the particular Enhancements that interest you. But your foolish if you do! Even though I consider myself knowledgeable about the APPLE, I found many things that I did not know. Many other things that the author brings out fall into the 'why didn't I think of that' category! The text is more than readable, in fact it is one of those rare 'technical' books that is fun to read.

A number of the enhancements require some small hardware changes. These are so well documented that it would be difficult for a beginner to go wrong. The software enhancements are well documented, providing source code comments, written discriptions, and hex dumps. Just going through the material will be a big help to those wanting to improve their knowledge of machine language programing. If you are lazy and don't want to key in the code, you can send the card in the back of the book for a Demo disk.

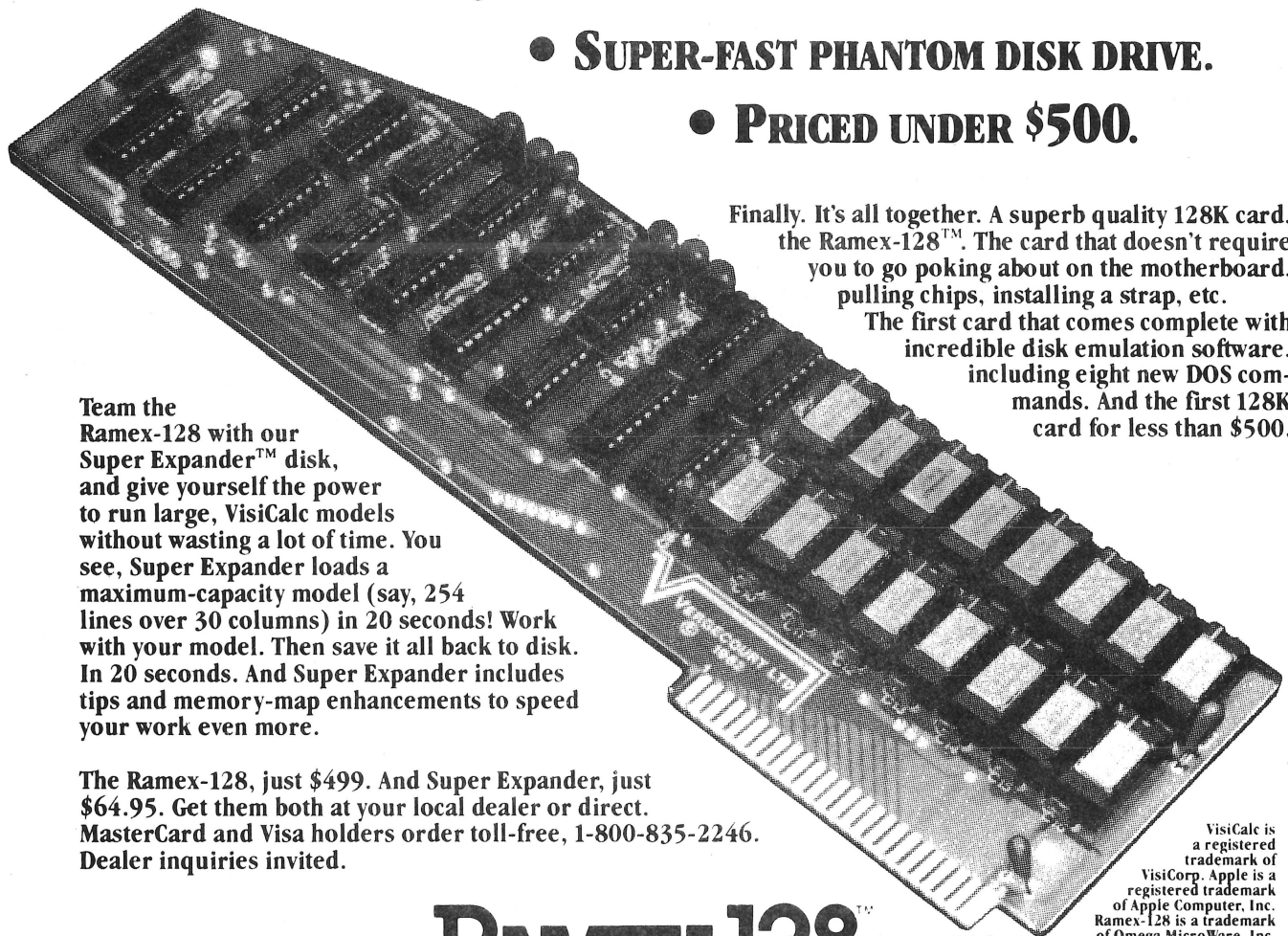
I can recommend this book to all those wishing to expand their working knowledge of the APPLE. In fact, I expect that this book will become a classic among the APPLE clan.

ENHANCING YOUR APPLE II, Vol. 1 \$15.95
by Don Lancaster
Published by Howard W. Sams & Co.
ISBN:0-672-21846-1

LB

NOW HERE FOR YOUR APPLE®: A CARD THAT BLOWS ALL THE OTHERS AWAY!

- **LOADS OR SAVES A FULL VISICALC® MODEL IN 20 SECONDS.
(NOT 16 MINUTES LIKE THE OTHERS)**
- **136K FOR A VISICALC MODEL.**
- **SUPER-FAST PHANTOM DISK DRIVE.**
- **PRICED UNDER \$500.**



Team the Ramex-128 with our Super Expander™ disk, and give yourself the power to run large, VisiCalc models without wasting a lot of time. You see, Super Expander loads a maximum-capacity model (say, 254 lines over 30 columns) in 20 seconds! Work with your model. Then save it all back to disk. In 20 seconds. And Super Expander includes tips and memory-map enhancements to speed your work even more.

The Ramex-128, just \$499. And Super Expander, just \$64.95. Get them both at your local dealer or direct. MasterCard and Visa holders order toll-free, 1-800-835-2246. Dealer inquiries invited.

Finally. It's all together. A superb quality 128K card, the Ramex-128™. The card that doesn't require you to go poking about on the motherboard, pulling chips, installing a strap, etc.

The first card that comes complete with incredible disk emulation software, including eight new DOS commands. And the first 128K card for less than \$500.

VisiCalc is a registered trademark of VisiCorp. Apple is a registered trademark of Apple Computer, Inc. Ramex-128 is a trademark of Omega MicroWare, Inc.

RAMEX-128™

UNDER \$500. WHAT ARE YOU WAITING FOR?



222 SO. RIVERSIDE PLAZA • CHICAGO, IL 60606 • 312-648-4844